SEQUENCE LISTING

SEQ ID NO: 1

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SEQ ID NO: 2

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## SEQUENCE LISTING

- (1) GENERAL INFORMATION
- (i) APPLICANT: Vogelstein, Bert Kinzler, Kenneth Sherman, Michael
- (ii) TITLE OF THE INVENTION: SEQUENCE SPECIFIC DNA BINDING BY P53
- (iii) NUMBER OF SEQUENCES: 41
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: Banner & Witcoff
  - (B) STREET: 1001 G Street, NW
  - (C) CITY: Washington
  - (D) STATE: DC
  - (E) COUNTRY: USA
  - (F) ZIP: 20001
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: Diskette
  - (B) COMPUTER: IBM Compatible
  - (C) OPERATING SYSTEM: DOS
  - (D) SOFTWARE: FastSEQ for Windows Version 2.0
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER: 08/299,074
  - (B) FILING DATE: 01-SEP-1994
  - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
  - (A) APPLICATION NUMBER: 07/860,758
  - (B) FILING DATE: 31-MAR-1992
  - (A) APPLICATION NUMBER: 07/715,182
  - (B) FILING DATE: 14-JUN-1991
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: Kagan, Sarah A
  - (B) REGISTRATION NUMBER: 32141
  - (C) REFERENCE/DOCKET NUMBER: 01107.47071
- (ix) TELECOMMUNICATION INFORMATION:
  - (A) TELEPHONE: 202-508-9100
  - (B) TELEFAX: 202-508-9299
  - (C) TELEX:
  - (2) INFORMATION FOR SEQ ID NO:1:
- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 405 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single

(D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION:	SEQ ID NO:1:
ATAAGCTTGA TATTCTCCC AGATGTAGTG CCTGGCCTTG CCTTTCTTT CTTTCTTCT TCTTCTTCTT CTTCTTCTT TTCTTCTTCT GAGACAGAGT TTCACTCTTG TTGCCCAGGC	CCGGGCCCCC CCTCGAGGTC GACGGTATCG AAAGCAGGTA GATTGCCTTG CCTGGACTTG TTCTTTATTA CTTTCTTCTT TTCTTCTTCT TCTTCTTCTT CTTCTTCTT TTTTTTTT
(2) INFORMATION FOR SEQ	ID NO:2:
<ul><li>(i) SEQUENCE CHARACTERISTICAL</li><li>(A) LENGTH: 238 base pair</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	rs
(xi) SEQUENCE DESCRIPTION:	SEQ ID NO:2:
TCCCATGATC TGATGGTTTT ATAAAGGGCA	CAGTGCTGTT CTCATGATAG TGACTAAGTC 60 GTCCTTCTAC ACATGCTCTC TTGCTTGCTA 120 GCCTTCTGCC ATGATTGTGA GACCTCCCCA 180 GCAGCCCGGG GGATCCACTA GTTCTAGA 238
(2) INFORMATION FOR SEQ	ID NO:3:
<ul><li>(i) SEQUENCE CHARACTERISTIC</li><li>(A) LENGTH: 10 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION:	SEO ID NO:3:
RRRCWWGYYY	10
(2) INFORMATION FOR SEQ	ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 51 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
- CGACCTGTCA CACCGGGGCC TGTCACAGCA TGACCTACCT GTCACACCGG G
  - (2) INFORMATION FOR SEQ ID NO:5:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 50 base pairs

<ul><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:	
ATTTTCACCA TGCTTCTGCA TGTCTAGGCA AGTCACCTTC TCCACTGGCC	50
(2) INFORMATION FOR SEQ ID NO:6:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 51 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:	
CCCCATCCTC CACTGAAACA ATGCCCAGAC TTGTCTCTCC GGCCTGAATG A	51
(2) INFORMATION FOR SEQ ID NO:7:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 46 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:	
TTTGTCCTAC CATCCAGGCA TGCCTTTGCC TCACTCGTTA TTTCCT	46
(2) INFORMATION FOR SEQ ID NO:8:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 51 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:	
TATCTGTGCA GCTGTGGGCA TGTTTTAGGC AAGCTTCCTG TGCTAGTTCC C	51
(2) INFORMATION FOR SEQ ID NO:9:	
<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 50 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

AACTAGATCC TTTTCAGACA TGTTATAACA AG	TCAGTACA AGTTTATTTT 5
(2) INFORMATION FOR SEQ ID	NO:10:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 39 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SE	Q ID NO:10:
GCTGGTGCAC AAGAGTGACA TGTCCCGACG TG	TTTTGTC 3
(2) INFORMATION FOR SEQ ID	NO:11:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 54 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SE	Q ID NO:11:
CATCATGCCA CCTGCAGGCA TGTTCTGGAT GG	GCTGTCTT GTGCTTTGTT GTTT 5
(2) INFORMATION FOR SEQ ID	NO:12:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 62 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SE	Q ID NO:12:
CAAACCAGGG TGTCTTGACT TGCCTATCCT GG TC	GAGGTTGA CATGTTCCTC CCCTTCCCCC 6
(2) INFORMATION FOR SEQ ID	NO:13:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 49 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SE	Q ID NO:13:
GCCAAACATA ACCACCAGCT GCCAAGGCAT GC	AGTACCAC GCTCAGCCC 4
(2) INFORMATION FOR SEQ ID	NO:14:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 49 base pairs</li></ul>	

<ul><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:	
CCAACTTGTC TATTCTGTGT TGATGGACAT GTTCCCGTTT TTGGCTATT	49
(2) INFORMATION FOR SEQ ID NO:15:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 51 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:	
GCAGTGTGGT GGAGGAAACA AGCCCAGGAT GTGCCCAGGG CAGGCTGGGA C	51
(2) INFORMATION FOR SEQ ID NO:16:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 48 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:	
ACTGTTGATG ATGAAAGACA AGCCTAGGGC AGGTCCTGGG GGGTGGGG	48
(2) INFORMATION FOR SEQ ID NO:17:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 50 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:	
TGTTCATACC TGTCCACACT TGTCTATACC TGCCTACACC TGTCTTGTTT	50
(2) INFORMATION FOR SEQ ID NO:18:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 61 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:	

CTTTAATTCA GTTGTAAACA TGACTTGTTC ATT	TATATGAC ATGTTCAATT ACAATTCGAT 60
(2) INFORMATION FOR SEQ ID	NO:19:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 50 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ	Q ID NO:19:
CTCAGTTCTC AGCTGGGACT TGCCCTGGCC AG	
(2) INFORMATION FOR SEQ ID	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 50 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEC	Q ID NO:20:
TGCCTCAGCA CCTTCAGGTT CTGCCGGGCT TG	TTCCTTTC CTTTCAGCAT 50
(2) INFORMATION FOR SEQ ID	NO:21:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 50 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ	Q ID NO:21:
GCCTTTGTTG TGCCCTGACT TGCCCAGACA TG	TTTGGGAA TGTCTTGTGC 50
(2) INFORMATION FOR SEQ ID	NO:22:
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 50 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ	Q ID NO:22:
GTATTCTCTT TTCCTAAGCA TGCCTTGACT TG	TTCTTTCA TCTCCTCTGA 50
(2) INFORMATION FOR SEQ ID	NO:23:
(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 50 base pairs	

<ul><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:	
TGAAAGCAGG TAGATTGCCT TGCCTGGACT TGCCTGGCCT TGCCTTTTCT	50
(2) INFORMATION FOR SEQ ID NO:24:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 10 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:	
AGGAATTCCT	10
(2) INFORMATION FOR SEQ ID NO:25:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 20 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:	
AGGAATTCCT AGGAATTCCT	20
(2) INFORMATION FOR SEQ ID NO:26:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 10 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:	
AGGCATGTCT	10
(2) INFORMATION FOR SEQ ID NO:27:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 20 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

AGGCATGCCT AGGCATGCCT		20
(2) INFORMATION FOR SEQ ID NO:28:		
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 20 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>		
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:		
AGGCAAGGCA AGGCAAGGCA		20
(2) INFORMATION FOR SEQ ID NO:29:		
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 49 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>		
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:		
TGCAGGAATT CGATAGGCAT GTCTAGGCAT GTCTATCAAG CTTATCGAT		49
(2) INFORMATION FOR SEQ ID NO:30:		
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 49 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>		
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:		
TGCAGGAATT CGATAGGCAT GTCTAGACAT GCCTATCAAG CTTATCGAT		49
(2) INFORMATION FOR SEQ ID NO:31:		
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 49 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>		
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:		
TGCAGGAATT CGATAGACAT GCCTAGGCAT GTCTATCAAG CTTATCGAT		49
(2) INFORMATION FOR SEQ ID NO:32:		
(i) SEQUENCE CHARACTERISTICS:  (A) LENGTH: 39 base pairs  (B) TYPE: public acid		

<pre>(C) STRANDEDNESS: single (D) TOPOLOGY: linear</pre>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:	
TGCAGGAATT CGATAGGCAT GTCTATCAAG CTTATCGAT	39
(2) INFORMATION FOR SEQ ID NO:33:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 29 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:	
TGCAGGAATT CGATATCAAG CTTATCGAT	29
(2) INFORMATION FOR SEQ ID NO:34:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 26 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:	
GAAAGAAAAG GCAAGGCCAG GAAAGT	26
(2) INFORMATION FOR SEQ ID NO:35:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 26 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:	
GAAAGAAAAG GCAAGGCCAT TAAAGT	26
(2) INFORMATION FOR SEQ ID NO:36:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 5 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:	
CAAAGAAAA GCCAAGCCCAT TAAACT	5

(B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:	
GAGTAGAATT CTAATATCTC	20
(2) INFORMATION FOR SEQ ID NO:38:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 10 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:	
AGGCATGTCT	10
(2) INFORMATION FOR SEQ ID NO:39:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 5 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:	
AGGCATGTCT	5
(2) INFORMATION FOR SEQ ID NO:40:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 19 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li><li>(D) TOPOLOGY: linear</li></ul>	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:	
CCTGCCTGGA CTTGCCTGG	19
(2) INFORMATION FOR SEQ ID NO:41:	
<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 19 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li></ul>	

(2) INFORMATION FOR SEQ ID NO:37:

(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 20 base pairs



(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

CCTTAATGGA CTTTAATGG

19